



Missouri Department of Conservation
GRANT APPLICATION & COOPERATIVE AGREEMENT

Discover Nature Schools

Conserving Missouri's Aquatic Ecosystems
2015–2016



GRANT GUIDELINES—These guidelines are specific to the *Conserving Missouri's Aquatic Ecosystems* program. You must contact your local Education Consultant to obtain the grant application.

PURPOSE OF PROGRAM

The purpose of the Discover Nature Schools program is to promote conservation education through instructional units that meet grade-level or course-level expectations and encourage hands-on outdoor learning experiences. Each unit is designed to increase student understanding and appreciation of our natural resources and our role in conserving them.

In an effort to assist as many teachers/schools as possible with funding towards implementing this unit, *Conserving Missouri's Aquatic Ecosystems* (hereinafter referred to as *CMAE*):

- 1. A one-time only \$1,000 grant for approved instructional and outdoor classroom materials will be awarded per school.**
- 2. *CMAE* must be taught (as set forth below) to twenty (20) or more students.**
- 3. Homeschool groups may receive training and materials but are not eligible for funding for equipment/supplies or field experiences.**
- 4. Schools in summer school sessions may receive funding for field experiences but are not eligible for funding for equipment/supplies.**

AGREEMENT DURATION

- 1. Applications may be submitted from June 1, 2015, through June 1, 2016. The grant period begins on date of approval letter.**
- 2. The following must be submitted and postmarked by September 1, 2016:**
 - Grant narrative report
 - Average pre- and post-instruction test scores
 - Dated detailed receipts clearly showing proof of payment for approved grant expenditures

MEASURABLE DELIVERABLES

MDC agrees to:

1. Furnish *CMAE*, an instructional unit on aquatic ecosystems. *CMAE* consists of a student book, student science notebook, and a teacher guide. The teacher guide features activities suitable for classroom and outdoor learning and meets specified science grade-level expectations for grades six through eight but which may be suitable to teach in fifth through ninth grade.
2. Provide required training (minimum of 6 hours) for all teachers using the *CMAE* unit.
3. Provide grant funding for approved *CMAE* aquatic instructional and outdoor classroom materials as listed in "Materials Funded by Grant."
4. Provide grant funding for reimbursement of bus transportation costs specifically for outdoor aquatic field experiences directly related to *CMAE*. (See "*CMAE* Field Experience Guidelines.")
5. Provide a primary local MDC Conservation Education Consultant contact.



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Discover Nature School agrees to:

1. Designate a lead contact/teacher to make decisions and direct implementation of the program. **This person is responsible for submitting dated detailed receipts clearly showing proof of payment along with a completed grant narrative report postmarked no later than September 1, 2016.**
2. Require **all participating teachers** to complete training (minimum of 6 hours) **prior to initial delivery of CMAE in the classroom.**
3. Teach lessons from *CMAE*, choosing learning experiences that best meet the needs of their students.
(Note: GLEs listed in the teacher guide would be met only if all activities are taught.)
4. If the field experience reimbursement option is chosen, require all students to participate in field experiences directly related to *CMAE* as set forth in the *CMAE* Guidelines.
5. After completion of *CMAE*, submit dated detailed receipts (clearly showing proof of payment and dated after date of approval letter) and a grant narrative report postmarked no later than September 1, 2016.

MEASURABLE OUTCOMES

All students will complete *CMAE* learning experiences as specified and experience related instructional activities in the outdoors in interaction with the natural environment.

FUNDING AND PAYMENT PROCESS

1. The Discover Nature School will submit a signed Agreement and will initially receive 50 percent of the grant award for approved instructional and outdoor classroom supplies upon approval of the Agreement.
2. **The school will be notified with an approval letter accompanied with the initial payment. The grant period begins on date of approval letter. Costs incurred prior to grant period are ineligible for reimbursement.**
3. Payment to the Discover Nature School will be the actual costs as documented, with dated detailed receipts clearly showing proof of payment, up to the maximum amounts stated herein.
4. All funds from MDC **must** be deposited in a timely manner.
5. The Discover Nature School shall provide dated detailed receipts clearly showing proof of payment for all costs (including bus transportation) associated with the approved Agreement along with a grant narrative report postmarked no later than September 1, 2016 before final reimbursement will be made.
6. The Discover Nature School will be reimbursed for bus transportation costs for field experiences after submission of dated transportation receipts. Transportation documentation must be an official bus company receipt or detailed receipt on school letterhead signed by a school administrator.
7. Final payment will be made upon completion of the program and submission and review of required grant narrative report and dated detailed receipts clearly showing proof of payment.

APPROPRIATION

Funds for this program must be appropriated for each fiscal year, and the Discover Nature School and MDC's obligations hereunder shall not be binding upon MDC for any period in which funds have not been appropriated.



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REPORTING REQUIREMENTS

1. The Discover Nature School shall contact the local MDC Conservation Education Consultant, Aquatic Resources Education Coordinator, or Education Programs/Curriculum Supervisor if any changes in the program arise. All changes must be approved prior to implementation. Failure to do so may result in denial of payment.
2. If, for any reason, the Discover Nature School cannot complete the instructional unit and related field experience(s) during the duration of the Agreement, further funds will not be provided, and any unused funds must be returned.

OWNERSHIP

1. Any equipment purchased with funds under this Agreement becomes the property of the Discover Nature School.
2. MDC reserves the rights to the copyright of all materials it produces and provides.

MONITORING REQUIREMENTS

1. **MDC's local Conservation Education Consultant shall monitor CMAE through ongoing informal monitoring by phone calls, on-site visits, and e-mail.** The Aquatic Education Coordinator, Education Programs/Curriculum Supervisor, or representative will monitor financial information and reports.
2. After completion of CMAE is verified and final reports are approved, MDC shall process final payment.
3. The Discover Nature School shall allow MDC access to all financial records and/or audited financial statements related to this agreement.

TERMINATION

MDC retains the right to terminate this Agreement at any time, without penalty or recourse, by giving written notice at least thirty (30) days prior to the effective date of termination. All unused grant funds must be returned to MDC.

The Discover Nature School may terminate this Agreement with 30 days of notice if agreed by MDC but must return all unused funds.

LEGAL COMPLIANCE, SAFETY & HOLD HARMLESS

The Discover Nature School hereby agrees to comply with all laws and regulations applicable to it, and to take all reasonable and lawfully required steps to ensure the safety of the public during the performance of this cooperative agreement and the provision of all public programs and activities furthered by it, and the Discover Nature School agrees to indemnify and hold harmless MDC, and its agents and employees, from any claim or suit arising out of, or in connection with, this cooperative agreement and the provision of all public programs and activities furthered by it.

OTHER PROVISIONS

MDC shall be given appropriate credit in all publications, educational materials, and in any media contacts related to CMAE and grant. Appropriate wording may include "The Missouri Department of Conservation provides the Discover Nature Schools program and grants so Missouri students learn to connect with nature and conserve it, too."



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GRANT ELIGIBILITY CHART

FIRST YEAR OF PARTICIPATION

🚌 A field experience reimbursement grant to cover bus transportation costs for field experiences up to \$7 per student (maximum of \$3,500) for *CMAE*.

AND

* A one-time only *CMAE* grant per school up to \$1,000 to purchase approved *CMAE* aquatic instructional and outdoor classroom supplies. (See “Materials Funded by Grant.”)

* Grant funds will be disbursed as follows: 50 percent of approved amount for purchase of approved instructional and outdoor classroom materials ***upon notification of approval of Agreement***; balance reimbursed upon completion of *CMAE* and submission of required documentation. (See 🚌 NOTE below.)

SUBSEQUENT YEARS OF PARTICIPATION

(or schools adopting *CMAE* in formal summer school)

🚌 A field experience reimbursement grant to cover bus transportation costs for field experiences up to \$7 per student (maximum of \$3,500) for *CMAE*.

(See 🚌 NOTE below.)

After 5 years of participation in the *CMAE* program, the school is eligible for an additional \$500 for equipment/supplies listed on page 5 of this agreement.

🚌 **NOTE:** Bus transportation costs and the balance for instructional material costs shall be reimbursed after receipt of required documentation postmarked by September 1, 2016. Documentation shall include a grant narrative report, average pre- and post-instruction test scores, and ***dated detailed receipts clearly showing proof of payment (no packing slips or purchase orders)*** for all one-time only *CMAE* materials and for bus transportation.



MATERIALS FUNDED BY GRANT

- This grant allows for a **one-time only** amount of \$1,000 for approved items. These items may be purchased in any combination or number based on a school's need. All purchases must be reflected on clear and legible original OR clear and legible copies of dated detailed receipts showing proof of payment.
- **Only items on this list are eligible for reimbursement.* No substitutions. Keep all dated detailed receipts clearly showing proof of payment.**

Aquatic Studies Supplies

- Water quality test kits or testing equipment [This may include thermometers, litmus paper, pH kits or meters, conductivity meters, dissolved oxygen kits, nitrate kits, turbidity tubes, secchi disks, or other basic equipment.]
- Kick seines with fine mesh
- Aquatic dip nets with fine mesh
- USGS 7.5-minute quadrangle topographic map for each group (If possible, obtain maps that include your school grounds or the field trip/study area and laminate before use.) (www.topomaps.usgs.gov/ordering_maps.html)
- Safety goggles (one per student)
- Field guides relevant to the CMAE unit
- Magnifiers/hand lenses/loupes
- Jars, vials, or other containers for field observation
- Stopwatches (one per group)
- Materials for construction of kick seines and dip nets (Must be approved by your local Education Consultant)
- 1–2 plastic containers (18 gal. or smaller)
- Bleach

Fishing Equipment and Supplies

- Fishing poles (closed-face reels recommended)
- Casting plugs (plastic practice)
- Bobbers
- Sinkers
- Fishing hooks
- Extra fishing line
- Live bait (worms, crickets, minnows)
- Tackle box (1)
- Fishing pole caddies
- Needle-nosed pliers
- Backyard Bass (www.ironwoodpacific.com)

Outdoor Classroom Supplies

- Potted plants, shrubs, or trees native to Missouri (*or annual plants known to attract specific Missouri wildlife and approved by your local Education Consultant*)
- Seed packets for plants native to Missouri (*or annual plants known to attract specific Missouri wildlife and approved by your local Education Consultant*)
- Plastic liner or plastic pond form
- Pond pump
- Pond plants native to Missouri
- Soil
- Mulch
- Border stone
- Garden tools (hand tools only)

*** NOTE:** Not all materials required to complete CMAE activities are funded by this grant.



CMAE FIELD EXPERIENCE GUIDELINES*

OBJECTIVES

Students participating in *CMAE* field experiences will:

- Explore and investigate an aquatic ecosystem
- Demonstrate and apply skills and knowledge gained from *CMAE* activities such as fishing, invertebrate sampling, and water quality sampling/testing to the planning of the experience and exploration of an aquatic ecosystem
- Demonstrate and apply use of science notebooks
- Pose questions and predict answers to those questions about the aquatic ecosystem
- Plan, collect, and organize data while conducting simple field investigations
- Present findings and conclusions relating to the field investigations of the aquatic ecosystem

In order to qualify for reimbursement of transportation costs for field experiences taken in conjunction with the *CMAE* unit, field experiences:

- Must occur at an aquatic, outdoor ecosystem (for example: conservation area; state park; national forest; private property with areas representative of Missouri's aquatic ecosystems included in the *CMAE* student book; etc.)
- Must provide students with opportunities to apply inquiry and field investigation skills and knowledge gained through activities in the *CMAE* unit, such as fishing, invertebrate sampling, and water quality sampling/testing.

Meaningful opportunities for students to apply the knowledge and skills fully to the field experience should include:

- Pre-trip planning time for students to research the aquatic ecosystem, pose questions, predict answers, and plan simple field investigation strategies
- Ample time for students to conduct simple, hands-on field investigations that allow students
 - To observe the living and non-living components of the aquatic ecosystem and the interactions among those components
 - To collect data related to and in support of their predictions
- Ample post-trip time for students
 - To organize their data
 - To prepare and present short class presentations on their field investigations and findings/conclusions

* Tours, demonstrations, and indoor nature programs are acceptable minor components as long as the majority of the field experiences are composed of hands-on and experiential learning activities that meet objectives outlined above. Field experiences that provide only tours, lectures, or demonstration stations do not qualify as *CMAE* field experiences.